



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,811	03/18/2004	Takashi Sasabayashi	2003054A125US	5595
24978	7590	06/21/2006	EXAMINER	
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			NGUYEN, THINH T	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/803,811	SASABAYASHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thinh T. Nguyen	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 14-16 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-16 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/18/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED OFFICE ACTION**

1. Applicant's election of claims 14-22 and 24 directed to device Claims for prosecution without traverse in the communication with the Office on 5/25/2006 is acknowledged. However, upon review of all elected claims the Examiner noticed that claims 17-22 are method claims therefore, they belong to non-elected claims and presently are withdrawn from consideration . however, elected claim 24 depend on generic claim 23 ( that has all the limitation of claim 24 ) therefore, claims 23-26 directed to devices claims will be considered. The Examiner already orally communicate with the applicant legal representative about the disposition of theses claims.

2. Claims 14-16, 23-26 are currently pending in the Application.

### ***Specification***

3. The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant cooperation is requested in correcting any errors of which the applicant may become aware in the specification.

### ***Drawings***

4. The Drawings are objected to because Fig. 1,2,3A,3B,4,5 are not designated by a legend such as “ prior art “. The legend is. necessary in order to clarify what applicant ‘s invention is (see MPEP paragraph 608.02).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(a) that form the basis for the rejections under this section made in this office action.

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. The Examiner noted that claims 14,23,25,26 are hybrid device by method claims.

**For example in claim 14 the limitation --“ said bumps are formed by polymerizing “--** is taken to be a product by process limitation and considered ***non-limitation***. In a product-by-process claim, it is the patentability of the claimed product and not of the recited process steps which must be established. Therefore, when the prior art discloses a product which reasonably appears to be identical with or only slightly different than the product claimed in a product-by process claim, a rejection based on sections 102 or 103 is fair. The Patent Office is not equipped to manufacture products by a myriad of processes put before it and then obtain prior art product and make physical comparisons therewith. In re Brown, 173 USPQ 685 (CCPA 1972). Also, a product by process claim directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ I S at 17 (footnote 3). See In re Fessman, 180 USPQ 324, 326 (CCPA 1974); In

re Marosi et al., 218 USPQ 289, 292 (Fed. Cir. 1983); and particularly In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985), all of which make it clear that it is the patentability of the final structure of the product "gleaned" from the process steps, which must be determined in a "product by process" claim, and not the patentability of the process. See also MPEP 2113. Moreover, an old and obvious product produced by a new method is not a patentable product, whether claimed in "product by process" claims or not.

**Note that a "product by process" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); In re Marosi et al, 218 USPQ 289; and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear**

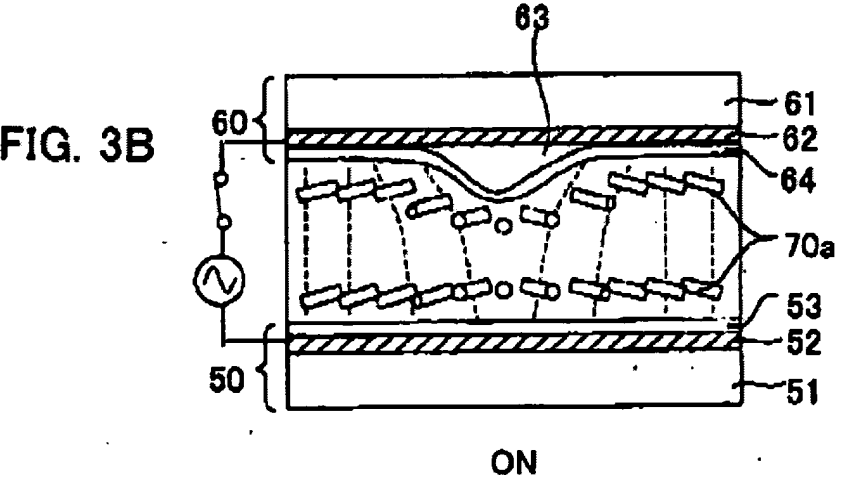
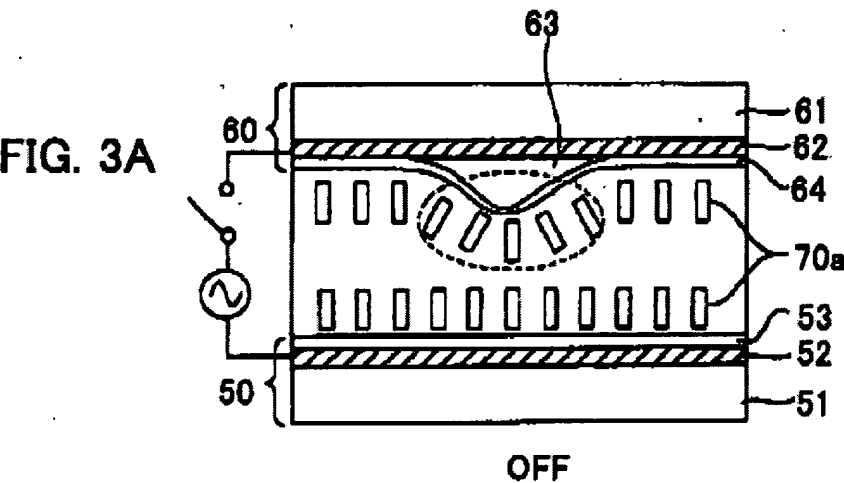
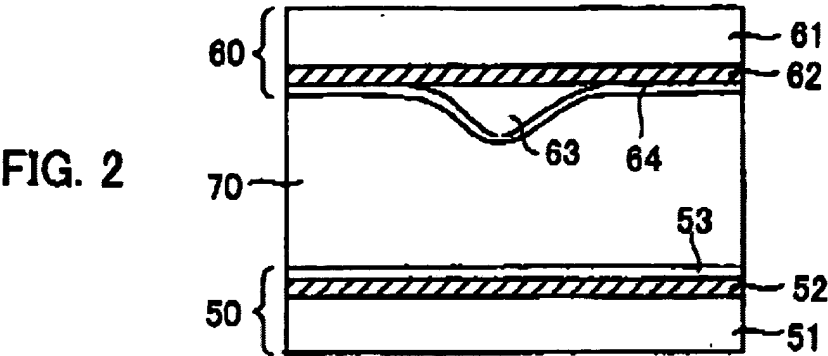
7. Claim 14,15,16 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant Admitted Prior Art or Background art ( fig 3A, 3B, page 7 line 2-19 in the BACKGROUND section ) ( fig 2, fig 3A, 3B, page 7 line 2-19 in the BACKGROUND section )

REGARDING CLAIM 14

The AAPA (fig 2, fig 3A, 3B, page 7 line 2-19 in the BACKGROUND section ) discloses a liquid crystal display apparatus comprising a first and second substrates ( fig 3A reference numeral 61,51) which are disposed facing each other, a liquid crystal ( fig 3A layer 70) sealed between said first and second substrates, a first electrode ( fig 3A, layer 52) formed on the liquid crystal side surface of the first substrate, a second electrode ( fig 3A layer 62) formed on the liquid crystal side surface of the second substrate, alignment control layers ( fig 3A layer 53,64) which cover the surfaces of said first and second electrodes and control the alignment direction of the liquid crystal molecules when no voltage is applied to be roughly vertical from the substrate face ( fig 3A) , and bumps which are formed on at least one surface of said first and second substrates and determine the tilting directions of the liquid crystal molecules when voltage is applied, ( fig 3B) wherein both of said alignment control layers and said bumps are formed by polymerizing a polymerizable compound which is added to said liquid crystal, and the alignment direction of the liquid crystal molecules near the bumps when no voltage is applied ( fig 3A ) is roughly vertical from the substrate face.

Noted that the bump and alignment control layer 64 are made of polyimide ( Background art page 6 lines 26-27 ) and polyimide is inherently a polymer compound. Also noted that the limitation —“ **formed by polymerizing** “—**is a product by process as set forth in the previous paragraph and is considered non-limitation..**

**Therefore, the AAPA or background Art correctly anticipated claim 14.**



REGARDING CLAIM 15

The AAPA ( fig 2,fig 3A, page 6 lines 10-18) discloses a liquid crystal display apparatus wherein both of the first and second substrates and both of the first and second electrodes are transparent.

REGARDING CLAIM 16

The AAPA ( fig 2,fig 3A, page 6 lines 10-18) discloses a liquid crystal display apparatus wherein at least part of said bumps contacts said first and second substrates.

REGARDING CLAIM 23

The AAPA (fig 2, fig 3A, 3B, page 7 line 2-19 in the BACKGROUND section ) discloses a liquid crystal display apparatus comprising a first and second substrates which are disposed facing each other, ( fig 3A reference 51,61 ) a liquid crystal sealed between said first and second substrates ( fig 2 reference 70 ) , tilt control sections which are disposed on at least one of said first and second substrates and determine the tilting directions of the liquid crystal molecules when voltage is applied, and alignment control layers ( layer 64,53) which are formed on the liquid crystal side faces of the first and second substrates and control the alignment direction of the liquid crystal molecules when no voltage is applied to be roughly vertical from the substrate face, wherein said alignment control layers are formed by polymerizing a polymerizable compound which is added to said liquid crystal.

Noted that the bump and alignment control layer 64 are made of polyimide ( Background art page 6 lines 26-27 ) and polyimide is inherently a polymer compound. Also noted that the limitation —“ **formed by polymerizing** ”—is a product by process as set forth in the previous paragraph and is considered non-limitation.



**Therefore, the AAPA or background Art correctly anticipated claim 23.**

REGARDING CLAIM 24

The AAPA (fig 2, fig 3A, 3B,) discloses a liquid crystal display apparatus wherein the tilt control sections are bumps or dents installed on at least one of the first and second substrates.

REGARDING CLAIM 25,26

Claims 25-26 have the limitation of product by process and are considered non-limitations as set forth in paragraph 6 of the Office Action therefore the AAPA ( fig 2,fig 3A,fig 3B ) correctly anticipated claims 25,26.

8. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and the page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to be abandoned (see M.P.E.P. 710.02(b)).

10. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d) which papers have been placed of record in the file.

### CONCLUSION

11. The prior arts made of record and not relied upon are considered pertinent to applicant disclosure: Liu (US patent 6,097,464 ) discloses a structure of a multi domain wide viewing angle liquid crystal display.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thinh T Nguyen whose telephone number is 571-272-1790. The examiner can normally be reached on Monday-Friday 9:30am-6: 30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached at 571-272-1907.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval [ PAIR ] system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thinh T. Nguyen

Art Unit 2818

*Andy Nguyen*  
ANDY HUYNH  
PRIMARY EXAMINER